

In the Claims:

1. (Original) A method comprising:  
encoding digital source material to steganographically convey plural-bit auxiliary data;  
passing the encoded source material to a destination through at least one intervening computer;  
at said intervening computer, detecting encoded source material transmitted thereby; and  
crediting a payment in response to said detection of the encoded source material, in accordance with the plural-bit auxiliary data steganographically conveyed by the encoded source material.
2. (Original) The method of claim 1 which includes decoding plural-bit auxiliary data only from source material that has first been tested to indicate the likely presence of such auxiliary data therein.
3. (Original) The method of claim 2 which includes testing source material by reference to an encoding attribute that is supplemental to said encoded plural-bit auxiliary data.
4. (Original) The method of claim 3 in which said attribute is the presence of a characteristic signature signal conveyed by said source material.
5. (Original) The method of claim 4 in which the signature signal is a repetitive noise burst signal.
6. (Original) The method of claim 1 in which said transmitting includes distributing through a network of interconnected computers.

7. (Original) The method of claim 1 reporting said detection to a location remote from detection; and crediting royalties based on detection.
8. (Original) A method comprising:  
presenting audio source material to a consumer, the material being encoded steganographically to convey plural-bit auxiliary data;  
decoding the audio source material that is presented to the consumer to decode the auxiliary data therefrom; and  
using the plural-bit auxiliary data to retrieve information about the source material from a remote location.
9. (Original) The method of claim 8 that includes:  
storing data indicating the audio source material(s) presented to the consumer;  
generating a report based on the stored data, indicating the audio source material(s) presented to the consumer.
10. (Original) The method of claim 8 which includes detecting the presented audio source material with a microphone, and decoding the auxiliary data from a microphone output signal.
11. (Original) A method comprising:  
receiving an object steganographically encoded with plural-bit auxiliary data;  
decoding the plural-bit auxiliary data from the object;  
consulting a registry to determine a proprietor of the object, by reference to said decoded plural-bit auxiliary data; and  
making a payment to said proprietor.
12. (Original) The method of claim 11 that includes making said payment through the registry.

13. (Original) The method of claim 11 in which the object is a work of authorship, and the encoding adds a generally imperceptible level of noise to the object as it is perceived by a consumer thereof.

14. (Original) The method of claim 11 in which the registry comprises a database accessible through the internet.

15. (Original) A method of encoding a digital object, comprising:  
encoding the object with a first information signal, said first information signal having relatively small information content, but permitting rapid decoding; and  
encoding the object with a second information signal, said second information signal conveying more information content than the first information signal, requiring relatively more time to decode; wherein the first and second information signals comprise at least one watermark embedded in the digital object.

16. (Original) The method of claim 15 in which the first information signal is a signal indicating to decoding equipment that the object is not to be copied, and the second information signal is a signal conveying information relating to ownership of the object.

17. (Original) The method of claim 15 in which:  
the digital object is a digital representation of music; and  
the first information signal is a repetitive signal that is conveyed at a low level within said music.

18. (Original) The method of claim 15 in which the first and second signals are independent of each other.

19. (Original) The method of claim 15 in which the first and second signals are aspects of a combined watermark signal.

20. (Original) A method of processing an object that has been steganographically encoded with first and second information signals, the method comprising:

decoding from the object the first information signal;

controlling an operation of an apparatus in accordance with the decoded first information signal; and

decoding from the object the second information signal, wherein the second information signal conveys a master global address.

21. (Original) A method of encoding audio with a marker signal indicating a master global address used to link to a web site, wherein the marker signal is characterized by being in-band and repetitive.

22. (Original) A method comprising:

reading payload data from a watermark on a physical object using a device; and

using the payload data read by the device in connection with a commercial transaction involving music related to said object.

23. (Original) The method of claim 22 in which the object is a poster having artwork thereon.

24. (Original) The method of claim 22 in which the object is a storage medium having a music video recorded thereon.

25. (Original) The method of claim 22 in which the device is a handheld, battery powered device.

26. (Original) A method of altering music data to steganographically insert plural bits of watermark data therein, characterized by inserting a first group of said bits for benefit of an end-user of the music data, inserting a second group of bits different than the first for benefit of an artist whose music is encoded by said music data, and

inserting a third group of bits different than the first two for benefit of a distributor of the music data.

27. (Original) The method of claim 26 in which the first group of bits represents an internet address of a web site that may be accessed by end-users of the music data.

28. (Original) The method of claim 26 in which the second group of bits includes bits representing a unique identifier for the music data, permitting machine identification of the data and royalty credit to the artist.

29. (Original) The method of claim 26 in which the third group of bits represents usage restrictions to which audio appliances are responsive, thereby driving distribution of additional copies of the music data.

30. (Original) A media object clearinghouse system comprising:  
a media object clearinghouse operable to transfer a media object electronically;  
a watermark decoder in communication with a media object receiver to receive a media object signal and operable to decode a watermark from the media object signal identifying the media object; and  
a transmitter in communication with the decoder for receiving a media object identifier derived from the watermark and for transmitting the media object identifier and a user identifier to the clearinghouse;  
wherein the media object clearinghouse is operable to identify the media object based on the media object identifier and the user based on the user identifier and electronically transfer a copy of the media object to a predetermined location associated with the user.

31. (Original) The media object clearinghouse of claim 30 wherein the predetermined location is a computer of the user.

32. (Original) The system of claim 30 wherein the clearinghouse is operable to determine a fee based at least in part on the media object identifier and to credit an account of the user with the fee for the copy of the media object.

33. (Original) The system of claim 30 wherein the predetermined location is a website, and the copy is accessible to the user at the website via a user-set password.

34. (Original) The system of claim 30 wherein the predetermined location is a personal library of the user that is consolidated with libraries of other users in a central location.

35. (Original) The system of claim 30 wherein the predetermined location is a personal library of the user.

36. (Original) The system of claim 35 wherein the clearinghouse and the personal library are connected via an internet connection and the personal library receives the copy from the clearinghouse over the internet connection.

37. (Original) The system of claim 35 wherein the personal library is operable to receive the copy of the media object from the clearinghouse via a wireless broadcast.

38. (Original) The system of claim 35 wherein the personal library provides the copy to a playback device by a wireless broadcast.

39. (Original) The system of claim 30 wherein the watermark includes a key to information about the media object, and the key is used to look up information about the media object.

40. (Original) The system of claim 39 wherein the information about the media object is presented to a user through the media object receiver.

41. (Original) The system of claim 40 wherein the information is stored in a device including the media object receiver, and the information is updated from a remote source.

42. (Original) The system of claim 30 wherein the media object receiver includes a user interface that enables a user to select a media object for watermark decoding and that presents information to the user about the media object derived from the watermark.

43. (Original) The system of claim 30 wherein the media object receiver includes a user interface that enables a user to select a media object for watermark decoding and that enables the user to instruct the clearinghouse to send a copy of the selected media object to another user.

44. (Original) The system of claim 30 wherein the media object receiver includes a user interface that enables a user to select a media object for watermark decoding and that enables the user to query a database for related information about the selected media object using data derived from the watermark.

45. (Original) The system of claim 44 wherein the user interface is operable to present the related information to the user.

46. (Original) The system of claim 30 wherein the media object is a song and the receiver is a radio operable to receive the song via a radio broadcast.

47. (Original) The system of claim 30 wherein the media object is a song and the receiver is an audio player that receives the media object via a computer network.

48. (Original) A media object clearinghouse method comprising:  
receiving a media object from a broadcast or electronic transfer;  
decoding a watermark from the media object;

deriving a media object identifier from the watermark;  
transmitting the media object identifier and a user identifier to a clearinghouse;  
in the clearinghouse, identifying the media object based on the media object identifier and the user based on the user identifier and electronically transferring a copy of the media object to a predetermined location associated with the user.

49. (Original) The method of claim 48 including:  
in the clearinghouse, charging a user account associated with the user identifier with a fee for the copy.

50. (Original) A method for linking an audio object with additional information or actions related to the audio object comprising:  
decoding a watermark from the media object;  
deriving a master global address from the watermark;  
connecting to a remote device and retrieving additional information associated with the audio object based on the master global address.

51. (Original) The method of claim 50 including:  
retrieving information about the audio object from a web server linked to the audio object through the master global address.

52. (Original) The method of claim 50 including retrieving menu options about the audio object from a remote device based on the master global address.

53. (Original) The method of claim 52 wherein the menu options are responsive to user input to control use, rendering or playback of the audio object.

54. (Original) The method of claim 52 wherein the menu options are responsive to user input to initiate electronic payment for the audio object.



55. (Original) The method of claim 52 wherein the menu options are combined with standard menu options for a file type associated with the audio object.

56. (Original) The method of claim 50 including retrieving instructions governing use of the audio object.

57. (Original) The method of claim 50 including initiating an electronic commercial transaction relating to the audio object.

58. (Original) The method of claim 50 including:  
using the master global address to query a server, which in turn looks up an address of a second device to which the query is to be routed.

59. (Original) The method of claim 58 wherein the second device returns information related to the audio object.

60. (Original) The method of claim 59 wherein the information returned by the second device includes a web page.

61. (Previously presented) A method comprising:  
receiving ambient music using a microphone in a cell phone;  
transferring electronic signals corresponding to the received ambient music to a processor;  
receiving from the processor an identifier derived from the electronic signals;  
using said identifier to obtain information from a database, said information relating to the music; and  
presenting at least textual information to a user about the ambient music, said presented information being based at least in part on information obtained from the database.

62. (Previously presented) The method of claim 61 in which the textual information presented to the user specifies the artist and title of the ambient music.
63. (Previously presented) The method of claim 61 in which the textual information provides the user an opportunity to have the music, or data related thereto, electronically sent to a destination device.
64. (Previously presented) The method of claim 63 that further includes the act of electronically sending the music, or data related thereto, to said destination device.
65. (Previously presented) The method of claim 63 in which the destination device is distinct from the cell phone.
66. (Previously presented) The method of claim 61 in which the textual information identifies packaged media on which the music is available.
67. (Previously presented) The method of claim 61 in which the cell phone includes a display, and the textual information is presented to the user on said display.
68. (Previously presented) The method of claim 61, triggered by a user action including pressing a button on the cell phone.
69. (Previously presented) The method of claim 61, triggered by a voice command of the user, acted upon by a voice recognition feature of the cell phone.
70. (Previously presented) The method of claim 61 in which the device is portable, sized to carry in a user's pocket.

71. (Previously presented) The method of claim 61 that includes:  
transmitting data from the cell phone to a remote computer, said data including user/device data relating to at least one of the following: user name, audio delivery information, user age, user gender, model of cell phone, device UID, or user UID;  
wherein the text presented to the user is dependent, at least in part, on said transmitted user/device data.
72. (Previously presented) The method of claim 61 in which the cell phone has a store-and-forward capability, wherein ambient music can be stored and later identified if wireless service is not available at the time when the ambient music is received by the microphone.
73. (Previously presented) The method of claim 61 that includes providing to the user one or more internet links determined - by reference to the identifier - to correspond to the ambient audio.
74. (Previously presented) The method of claim 61 that further includes the act of processing the transferred electronic signals to generate the identifier.
75. (Currently amended) The method of claim [41] 61 in which said processing is performed in the cell phone.
76. (Currently amended) The method of claim [41] 61 in which the processing comprises decoding a watermark from the transferred electronic signals.
77. (Previously Presented) A portable communication device comprising: a microphone structured for receiving sound waves, the sound waves being representative of (i) an audio signal and (ii) hidden data embedded in the audio signal, the microphone converting the received sound waves into an electrical output signal; a processor electrically coupled to the microphone and configured to receive the electrical output signal in order to extract the hidden data and provide information represented by the

hidden data as an output thereof; a user interface electrically coupled to the processor and configured to (i) receive a first input from the user and (ii) activate the processor to selectively initiate extraction of the hidden data in accordance with the first user input, the processor producing as an output the information represented by the hidden data; and a user presentation mechanism configured to present the information represented by the hidden data to the user.

78. (Previously Presented) The portable communication device according to claim 1, wherein the user interface is further configured to (i) receive a second input from the user and (ii) activate the processor to output data representative of the second input, the second input being indicative of user preferred portions of the information representative of the hidden data presented to the user.

79. (Previously Presented) The portable communication device according to claim 2, further comprising an output mechanism electrically coupled to the processor and configured to receive the output therefrom and transmitting a signal corresponding to the received output.

80. (Previously Presented) The portable communication device according to claim 3, wherein the transmitted signal activates computer network functions.

81. (Previously Presented) The portable communication device according to claim 3, further comprising an embedding device for (i) receiving the output from the processor and (ii) embedding the output with identification information, wherein the signal corresponding to the received output includes the embedded identification information.

82. (Previously Presented) A portable communication device comprising: a receiver structured to receive a radio frequency signal containing hidden data and converting the radio frequency signal into an electrical output signal; a processor electrically coupled to the receiver and configured to receive the electrical output signal

in order to extract the hidden data and provide information represented by the hidden data as an output thereof; a user interface electrically coupled to the processor and configured to (i) receive a first input from the user and (ii) activate the processor to selectively initiate extraction of the hidden data in accordance with the first user input, the processor producing as an output the information represented by the hidden data; and a user presentation mechanism configured for presenting the information represented by the hidden data to the user.

83. (Previously Presented) A base station configured to (i) receive and process information broadcast from a portable communication device, (ii) extract hidden data from the processed broadcast information, the extracted hidden data including identifier information and linking information, and (iii) establish a communication link to a destination represented by the linking information.

84. (Previously Presented) A communication system for processing a broadcast audio signal including hidden data, the communication system comprising: a portable communication device including: a microphone structured for receiving sound waves, the sound waves being representative of (i) an audio signal and (ii) hidden data embedded in the audio signal, the microphone converting the received sound waves into an electrical output signal; a processor electrically coupled to the microphone and configured for receiving the electrical output signal in order to extract the hidden data and provide information representative of the hidden data as an output thereof; a user interface electrically coupled to the processor and configured for (i) receiving a first input from the user and (ii) activating the processor to selectively initiate extraction of the hidden data in accordance with the first user input, the processor producing as an output the information represented by the hidden data; and a user presentation mechanism configured for presenting the information represented by the hidden data to the user; wherein the user interface is further configured to (i) receive a second input from the user and (ii) activate the processor to output data representative of the second input, the second input being indicative of preferred user portions of the information represented by the hidden data presented to the user; an output mechanism electrically coupled to the

processor and configured for receiving the output therefrom and transmitting a signal corresponding to the received output; and a base station configured to (i) receive and process the signal corresponding to the output from the portable communication device, (ii) extract the hidden data from the processed signal, the hidden data including identifier information and linking information, and (iii) establish a communication link to a destination represented by the linking information.

85. (Previously Presented) A portable communication device comprising: a receiver configured to receive a broadcast signal, the broadcast signal being representative of (i) an audio signal and (ii) hidden data embedded in the audio signal, the receiver converting the received broadcast signal into an electrical output signal; a processor electrically coupled to the receiver and configured to receive the electrical output signal in order to extract the hidden data and provide information representative of the hidden data as an output thereof; a user interface electrically coupled to the processor and configured for (i) receiving an input from the user and (ii) activating the processor to selectively initiate extraction of the hidden data in accordance with the input, the processor producing as an output information represented by the hidden data; and a user presentation mechanism configured for presenting the information represented by the hidden data to the user.

86. (Previously Presented) A method of communicating using a system including a processor, a user interface, and a user presentation mechanism, the method comprising: receiving sound waves using a microphone, the sound waves being representative of (i) an audio signal and (ii) hidden data embedded in the audio signal, and converting the received sound waves into an electrical signal; selectively extracting the hidden data from the electrical signal in accordance with a first input from a user and producing information representative of the hidden data; and presenting the information representative of the hidden data to the user.

87. (Previously Presented) A method of sharing broadcast revenue among a plurality of entities, each entity of the plurality receiving revenue shares based upon a

broadcast of data signals, the data signals being representative of audio content and including hidden information embedded therein, the method comprising: broadcasting the data signals having the hidden information, the hidden information including at least an identity of each of the entities; receiving the broadcast data signals in a portable communication device; separating the hidden information from the information content in the received broadcast data signals and presenting the hidden information to a user to facilitate a user selection, the user selection being associated with the hidden information; wirelessly transmitting the user selection to a revenue determination center; determining a revenue share amount for each of the plurality of entities based upon the broadcast data signals and the user selection; and allocating the determined revenue share amount to each of the plurality of entities.

88. (Currently amended) The method of sharing broadcast revenue according to claim [44] 87, wherein the separating includes converting the received broadcast data signals into electrical signals and extracting the hidden information from the electrical signals.

89. (Currently amended) The method of sharing broadcast revenue according to claim [44] 87, wherein the wirelessly transmitting includes transmitting the user selection to a wireless network resource, the wireless network resource being coupled, at least indirectly, to the revenue determination center.